

Farmers and citizens perceptions of ecosystem services and sustainability of mountain farming

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Public goods derived from agro-ecosystems need to be valued for better design of agri-environmental policies and payments for ecosystem services (ES). In this context, 5 focus groups (2 with farmers and 3 with citizens; n=33) were organized in north-eastern Spain to gain information on the spontaneous knowledge and perceptions of farmers and citizens about ES provided by mountain agriculture. Discussions were guided according to 5 general questions, lasted around 1.5 hours, were video recorded and transcripts were written for text analysis. Items appearing in texts were organized according to the type of ES they referred to (provisioning, regulation, habitat, cultural) or other sustainability issues (farm economics, family/social issues, socio-economic context, policy/regulatory context). The ES considered more important by participants were (number of times mentioned in descending order): aesthetic (landscape/vegetation); gene pool protection (biodiversity maintenance); disturbance prevention (forest fires); lifecycle maintenance (nutrient cycling, photosynthesis); raw materials (firewood, forage); water purification/waste management; spiritual experience; recreation/tourism; soil fertility/erosion prevention; and culture/art. Other important sustainability issues were (in descending order): ethics of food production, farming abandonment and rural development, product quality, wildlife conflicts and agricultural policy. Differences between farmers and citizens were observed: farmers gave more importance issues relating their own farming activity or local circumstances (provisioning and regulating ES; policy and legal context), whereas citizens showed in general more global concerns (cultural ES; socio-economic context, in particular ethical concerns on food production).